

**Remarks:**

Pending in this application at the time of the outstanding Office Action were claims 2-28, 55-70, 80-100. The Applicant gratefully acknowledges the examination of claims 21 to 24, 61 to 64, and 94 to 97. The Office Action allowed claims 2 to 27 and 55 to 70 and indicated that claims 83 to 87, 92, and 94 to 97 would be allowable if rewritten in independent form. The Applicant respectfully requests that the rewriting of claims 83 to 87, 92, and 94 to 97 be held in abeyance pending consideration of this paper. Also, the Office Action rejected claims 28, 80 to 82, 88 to 91, 93 and 98 to 100 as being obvious in view of Wolf.

More specifically, the Office Action asserted (by way of incorporating previous office actions) that the overlapping primary particle size range of Wolf renders the claimed primary particle size range obvious. However, claim 28 recites in pertinent part a non-oxide powder of which at least about 40% by mass is comprised of a plurality of tightly agglomerated compositions wherein said primary particles have an average size in a range of about 1 nanometer to about 100 nanometers.

In contrast to the claimed powder wherein at least 40% by mass of the powder is comprised of tightly agglomerated compositions, Wolf describes a method that produces relatively large, "inadequately sintered agglomerates" (emphasis added) that must be separated from the powder. See column 5, lines 20-24 of the '456 patent (i.e., Wolf). Because these large agglomerates are inadequately sintered, a person having ordinary skill in the art would conclude that the agglomerates are not tightly agglomerated or else Wolf would consider them to be adequately sintered. Furthermore, because Wolf teaches that these inadequately sintered agglomerates are present in sufficient quantity to require their separation from the powder, Wolf would therefore fail to teach a person of ordinary skill in the art to produce a powder wherein at least 40% by mass of the powder is comprised of tightly agglomerated compositions.

Furthermore, Wolf describes a method wherein before the particle size [of the powder] was determined using a Mastersizer, the powders were subjected to a deagglomerating ultrasonication for 5 minutes in order to separate the relatively large, inadequately sintered agglomerates. Wolf teaches that "[t]he Mastersizer D50 values measured without deagglomerating ultrasonication are typically between 40 and 180  $\mu\text{m}$  or between 40 and 100

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$\mu\text{m}$  depending upon whether the powder was passed through a screen having a 400  $\mu\text{m}$  or 220  $\mu\text{m}$  mesh." See column 5, lines 20-29.


Thus, depending on the screen mesh size used to measure the powder, the upper end of the particle size range varies by 80%. This variation of the particle size indicates to a person having ordinary skill in the art that a considerable percentage of the powder is comprised of the relatively large, inadequately sintered agglomerates. Thus, it is respectfully submitted that the variation in particle size, depending on the screen used to measure it, further compels the conclusion that Wolf fails to teach or suggest a powder wherein at least 40% by mass of the powder is comprised of tightly agglomerated compositions.

Since Wolf fails to disclose a powder wherein at least 40% by mass of the powder is comprised of tightly agglomerated compositions, the Applicant respectfully requests that the rejection of claim 28 and the claims dependent there from, claims 80 to 82, 88 to 91, 93, and 98 to 100 be withdrawn.

Conclusions:

Thus, it is believed that all of the pending claims are allowable and that all of the rejections have been overcome or rendered moot. Accordingly, Applicant respectfully submits that the application is in condition for allowance. Favorable action is respectfully requested.

Respectfully submitted,



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